

IN THE CLAIMS

1. (currently amended) Low expansion transparent glass-ceramics obtained by heat treating a base glass produced at a melting temperature of 1530° or below, said glass-ceramics containing 0.5 - 2% of CaO on the basis of the amount of total oxides having an average linear thermal expansion coefficient (α) within a range from $+6 \times 10^{-7}/^{\circ}\text{C}$ to $+35 \times 10^{-7}/^{\circ}\text{C}$ within a temperature range from 100° to 300° and having 80% transmittance wavelength (T_{80}) of 700nm or below.
2. (original) Low expansion transparent glass-ceramics as defined in claim 1 wherein internal transmittance for a plate having thickness of 10mm is 75% or over at light wavelength of 1550nm.
3. (original) Low expansion temperature of 800° or over.
4. (original) Low expansion transparent transparent glass-ceramics as defined in claim 1 having a heat resisting glass-ceramics as defined in claim 1 having Young's modulus of 90 GPa or over.
5. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing β -quartz or β -quartz solid solution as a predominant crystal phase.
6. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing 1.5% - 3.5% Li_2O in mass % on the basis of amount of total oxides.

7. (original) Low expansion transparent glass-ceramics as defined in claim 1 wherein amount of eluting lithium ion is less than $0.0050\mu\text{g}/\text{cm}^2$.

8. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing 3% - 6% TiO_2 in mass % on the basis of amount of total oxides.

9. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing three or more ingredients among RO ingredients (where R is Mg, Ca, Sr, Ba or Zn) in an amount of 0.5% or over in mass % on the basis of amount of total oxides for respective ingredients.

10. (original) Low expansion transparent glass-ceramics as defined in claim 9 containing ZnO in a larger amount than other RO ingredients in mass % on the basis of amount of total oxides.

11. (original) Low expansion transparent glass-ceramics as defined in claim 9 containing a total amount of the RO ingredients of 3.5% or over in mass % on the basis of amount of total oxides.

12. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing a total amount of $\text{R}'\text{O}$ ingredients (where R' is Mg, Ca, Ba or Sr) of 3% - 13% in mass % on the basis of amount of total oxides.

13. (original) Low expansion transparent glass-ceramics as defined in claim 1 comprising in mass % on the basis of amount of total oxides:

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|-------------------------|----------|
| SiO_2 | 50 - 65% |
| Al_2O_3 | 20 - 30% |
| MgO | 0.5 - 2% |
| CaO | 0.5 - 2% |
| SrO | 0 - 10% |

| | |
|--|------------|
| BaO | 1 - 5% |
| ZnO | 0.5 - 15% |
| Li ₂ O | 1.5 - 3.5% |
| TiO ₂ | 3 - 6% |
| ZrO ₂ | 1 - 5% |
| Nb ₂ O ₅ | 0 - 5% |
| La ₂ O ₃ | 0 - 5% |
| Y ₂ O ₃ | 0 - 5% |
| As ₂ O ₃ and/or Sb ₂ O ₃ | 0 - 2%. |

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43. (new) Low expansion transparent glass-ceramics obtained by heat treating a base glass produced by melting oxides at a melting temperature of 1530° or below, said glass-ceramics having an average linear thermal expansion coefficient (α) within a

range from $+6 \times 10^{-7}/^{\circ}\text{C}$ to $+35 \times 10^{-7}/^{\circ}\text{C}$ within a temperature range from 100° to 300° and having 80% transmittance wavelength (T_{80}) of 700nm or below said oxides being selected from the group comprising in mass % on the basis of the amount of total oxides:

| | |
|--|------------|
| SiO_2 | 50 - 65% |
| Al_2O_3 | 0 - 30% |
| MgO | 0.5 - 2% |
| CaO | 0.5 - 2% |
| SrO | 0 - 10% |
| BaO | 1 - 5% |
| ZnO | 0.5 - 15% |
| Li_2O | 1.5 - 3.5% |
| TiO_2 | 3 - 6% |
| ZrO_2 | 1 - 5% |
| Nb_2O_5 | 0 - 5% |
| La_2O_3 | 0 - 5% |
| Y_2O_3 | 0 - 5% |
| As_2O_3 and/or Sb_2O_3 | 0 - 2%. |